

The monthly A*C*E

since 1982

May 2001



**Solid
Rock
RADIO**

Date:

Time:

Frequency:

Reporter:

**We're Glad You Caught Our Signal
And Not Us!!**

from the desk of the Managing Editor

Ye Olde jta: jta@realns.com

or: (716) 365-8870 (not collect)

This must be "lucky 13"! It's the 13th issue I've published, and it's the last one (at least for now). I am pleased to announce that beginning with the June issue we will have a new Publisher and your Monthly ACE will be mailed from somewhere other than Belfast.

Please make a note of this; the new Publisher is none other than veteran DXer and publisher Harry Helms (formerly head of HighText). Your unsolicited feature article contributions should be sent direct to him at PO Box 335, Ridgecrest, CA 93556-0335.

Your subscriptions and renewals should continue to be sent to me at PO Box 1, Belfast, NY 14711, until further notice since I will remain as Business Manager.

Thanks for the hassle, Harry. And good luck with the Publishing. Harry knows a little about DTP, so just maybe he'll be able to improve the looks of The monthly ACE.

FRN THE FREE RADIO NETWORK

"Pirate Radio Invades the World Wide Web!"



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- ✓ News
- ✓ The Grapevine
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DIALOGS May 2001

Lee Reynolds, 53 Unity Springs Road, Lempster, NH 03605-3130

Email: reynolds@w3bsitemail.net

ICQ# 4130354

(Next deadline for submissions: May 19, 2001)

LATE LOGS

WBIG

- 03/18/01, 0648-0744*, 6945L - Mike w/mx - Beatles, "Blue Suede Shoes", "The Lumberjack Song" and ID. (MP-SD 444)

UNID

- 03/18/01, 0630-0646, 6950U - OM ann. w/talk and rock mx. At 0636 heard "...yeeesss, I'm sorry, I gotta go now....." (MP-SD 222)

FROM ACROSS THE POND

Alfa Lima International (Hoogeveen)

- 03/25/01, 0518-0532+, 15070A - mx - oldies w/ID & telephone # by Alfred in EE. (CL-MA 232)

FRS (Herten)

- 03/25/01, 0544-0611, 9297A - mx - oldies, email address, reading of listener's letters, & reports by Peter in EE. (CL-MA 232)

NORTH/SOUTH AMERICAN LOGGINGS

Blind Faith Radio (blindfaithradio@yahoo.com)

- 04/15/01, 1525-1543*, 6955U - Doctor Napalm with his classic rock format and apologies for lack of activity of late. (GZ-OH 242)

Buckwheat Radio (Unknown)

- 04/14/01, 2353-0013, 6950U - mx - unknown, "Buckwheat Radio" IDs, announcer said the cuts were by the "Mood Swings" (?) Claimed to be running 5 Watts. (AF 333)

Crunche Radio (FRN/A.C.E.)

- 03/20/01, 0318-0331+, 6950A (JS-NE)
- 03/25/01, 0502-0515, 6950A (JS-NE)
- 03/26/01, 0341-0343+, 6950A (JS-NE)
- 04/08/01, 0301-0405+, 6950A - mx - Dixieland, orchestral light and acoustic. (CL-MA 232) (AF 343) (JS-NE)

Eat It Radio (FRN)

- 04/08/01, 2158-2243, 6950U - "Scooby Doo", "Facts of Life" theme tunes, show dedicated to his hamster. (CL-MA 243)

Jean Chretien Worldwide (email but I don't have it yet)

- 03/23/01, 0149-0244*, 6950U - mx - all rock with "We will not let them tear down" loop between each cut. (GZ-OH 353)

KHJ (Unknown)

- 03/25/01, 0340-0410*, 6950L - mx - 70's, 80's with KFJ IDs. Off with "Good evening". (Pse QSL JS-NE)
- 03/26/01, 0158-0228*, 6950U - mx - "Holly Jolly Christmas", "Burning Down The House", player piano music. (Pse QSL JS-NE)
- 04/15/01, 0201-0220, 6951L - mx - hardcore punk. YL jingles "More music...KHJ" (RC-MA 322)
- 04/16/01, 0033-0104*, 6950U - mx - rock with frequent KHJ jingles. No talk content other than the jingles. (GZ-OH 242)

KRMI (krmi6955@hotmail.com)

- 04/08/01, 0216-0234*, 6945U - mx comedy - "I take a toke", "Screw the FCC". (AF 444) (JS-NE)

Mystery Science Radio (A.C.E. Dialogs)

- 03/25/01, 1559-1703, 19000U - mx, Cocteau Twins, Bella Sonus. Host Cherokee Jack Perkins. Tribute to MST3K, how to make a New Age record. (Pse QSL JS-NE)

Radio Cochiguaz (Santiago)

- 03/25/01, 0019-0050+, 11440U - mx - South American pipes, other. Difficult copy. (JS-NE)

Radio Free Euphoria (Belfast)

- 03/31/01, 0148-0230, 6950L - rerun of an old show. Mention of 1996 Pirate Directory, the Captain and Mary Jane hosting. (LR-NH 555)(JS-NE)

Radio Free Speech (Belfast)

- 04/08/01, 0015-0045, 6950A - mx - parodies of Elvis, Simon & Garfunkel tunes. SW religious programming. Clinton parodies. Old show. (AF 333)(LR-NH 333)

Radio Morania (none)

- 04/14/01, 0711-0738, 6955U - "Morania Ham Shack". "Moranian prefixes change from time to time", possibly section answering listener's letters. (AF 222)

Radio Neptune Universal Service (Blue Ridge Summit)

- 03/28/01, 0403-0438+, 6945v - replay of show #7. (JS-NE)

Radio Xanax (Probably none by now)

- 03/25/01, 0225-0254*, 6950L - show #5. "Radio Xanax - The Relaxation Station". (JS-NE) (This is another relay of an old show on tape - was giving the Stoneham drop. Lee)

Shadow Radio (Unknown)

- 04/02/01, 0202-0228+, 6950U - sounded like a SciFi story by Jack Williamson? (Pse QSL JS-NE)

Sycko Radio (None)

- 03/23/01, 2350-0008, 6950U - "crystal oscillator with wire wrapped around a cork". (DC-IN 333)
- 04/03/01, 0250-0340, 6950U - Mellow Yellow, Camel Wides advertisement. (DC-IN 343)

Take It Easy Radio (Belfast)

- 04/16/01, 0154, 6952CW - just the cw ID "TIER", nothing more. (AF)

The Scream Of The Mosquito (Unknown)

- 04/03/01, 0003, 6955U - mx - Shocking Blue, Ides of March(?) Short. (Pse QSL FM-NH 444)

The Voice Of The Runaway Maharishi (Belfast)

- 04/05/01, 0129-0139+, 6950L - the mellifluous tones of the Maharishi himself requesting mint-flavored stamps and rendering a number of drug-related ditties. (LR-NH 555)

URGZ (Unknown)

- 04/07/01, 2227-2307*, 6950A - comedy, bathroom, "pocket pool". Difficult copy. (AF 222)

Voice Of The Bizarro World (Huntsville)

- 04/08/01, 0118-0140+, 6950A - mx - organ "Afternoon Delight" w/Xhem, your host. (CL-MA 232)

WBNY (No currently valid address)

- 04/15/01, 2305-2315*, 6950A - call for Rodent Revolt, song about Rabbit and Rainbow. Host "Sunny the Bunny". Old drop address of PO Box 40554, Washington, DC 20016 was given. (AF 332) (GZ-OH 242)
- 04/15/01, 2354-0001, 6955A - repeat of earlier show, wishing a happy Easter to all Dxers except for Al Fansome (who posts rabbit recipes on the 'net) and the evil Radio Bob. (AF 433)

WMFQ (Providence)

- 03/28/01, 0144-0200+, 695 - mx - "Tax Man" by the Beatles. (DC-IN 343)
- 03/29/01, 0138-0225, 6550U - mx - Beatles, Beach Boys. Off with profane loop. (AF 434)(LR-NH 444)

WPN (wpn_sw@yahoo.com)

- 04/06/01, 0301-0329, 6950A - A repeat of the Captain's "Masturbation Show". (LR-NH 544)(JS-NE)

WRX Parody (None)

- 03/28/01, 0149-0201, 6955U - excerpts of Jimmy's Greatest Hits and thoughtful commentary on the contemporary Pirate scene. (Pse QSL JS-NE)

Z-100 (bigz100fm@yahoo.com)

- 03/22/01, 0004-0140, 6955U - mx - "Fool in the Rain". (DC-IN 434)
- 03/24/01, 0105-0200+, 6955U - mx - good mix including "Frankenstein". (DC-IN 344)
- 03/25/01, 0112-0200+, 6955U - mx - usual well produced rock oldies format. (JS-NE)

TENTATIVE/UNIDENTIFIED

Buckwheat Radio(?) (Unknown)

- 04/10/01, 0126-0153, 6955U - mx - unknown, Chris Isaak. Dedicated a song to a certain listener, RF feedback problems, claimed first time on the air. (AF 221)

WCF(M? L?)

- 03/24/01, 0128-0306, 6955U - mx - Van Morrison, Neil Diamond, Paul Revere and the Raiders. (GM-CT 232)

Unid

- 03/23/01, 0130-0310, 6950U - loud and clear except for station ID! (Pse QSL DC-IN 545)
- 03/24/01, 0207-0306*, 6950U - mx - Zombies, CCR, Joni Mitchell. ID sounded like "W-7-F-M". (Pse QSL JS-NE)
- 03/31/01, *2205*, 6955U - Numbers station parody "Taco, Taco, Tacos are your friend" (Pse QSL JC-ON 322)
- 04/08/01, 0143-0159, 6950A - lots of electronic sfx, gave a phone #1-800-479-xx19", elaborate production. (Pse QSL JS-NE)
- 04/11/01, 0213-0244, 6950L - mixture of clips including "United Patriot Radio" ID and Jimmy Da Weasel rants. MX included rap and an old Vapors number. (AF 434)
- 04/16/01, 0033, 6949L - mx - punk. (AF 333)

CONTRIBUTORS/PLEASE QSL

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Lee Reynolds, 53 Unity Springs Road, Lempster, NH 03605-3130 (LR-NH)

John Sedlacek, 2728 North 45th Avenue, Omaha, NE 68104-4527 (JS-NE)

George Zeller, 3492 West 123rd Street, Cleveland, OH 44111 (GZ-OH)

RAMBLINGS

Correspondent Marina Pappas didn't have much luck with the Mailstation as an email method (no local access numbers) so now a computer is being eyed. Suggestion - if you want inexpensive, the WebTV box isn't too bad. I've set a few people up with them and these devices are almost impossible to break! They also seem to have dialup points almost everywhere.

A lot of rebroadcasts of old shows have been heard this month. Bear in mind that this means that it's quite possible that the drop no longer exists, and even if it does, the originator of that show may no longer be reachable or interested in QSL'ing any longer! Rumor has it that Radio Free Euphoria and the Voice of the Runaway Maharishi may still be reachable - if one were to know such things.....

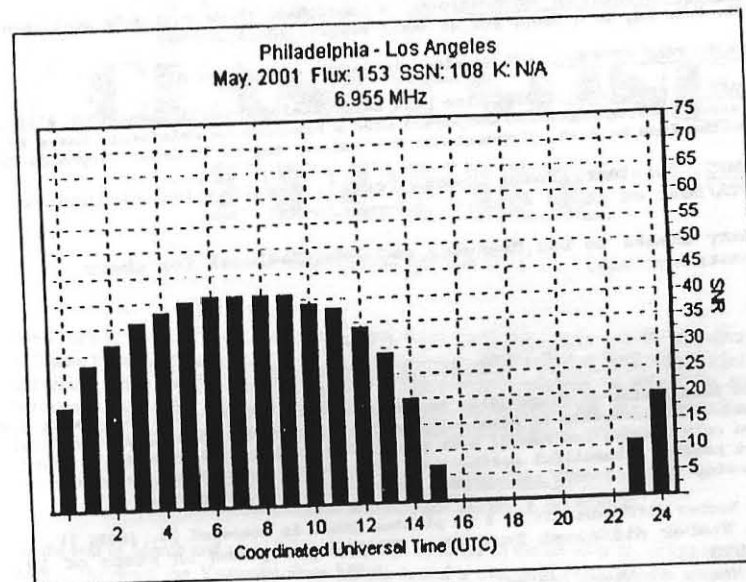
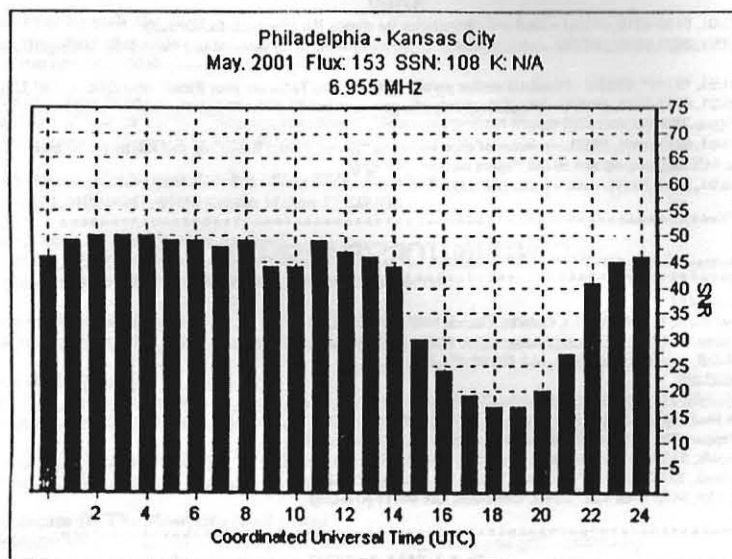
PROPAGATION

Okay, because we're such wild and crazy guys and because Monitoring Times said that no hobbyist print publication carries such things any longer, we're adding a Pirate-specific section on shortwave propagation tables. There - A.C.E. members get something that no other hobbyist magazine can offer - are we good or what?

Take a look at them - they've been kept very simple and they've been generated with one thing in mind - to show the best times for transmitting to a target area (if you're a Pirate operator) or for listening for transmissions from a given area of the USA (if you're a Pirate listener.)

These graphs show a month's propagation conditions for the USA, divided roughly into East, Midwest and West zones. If you're in Chicago, you can see the best times to listen for the West Coast or the East Coast. If you're in Los Angeles, you can see when you have the best chance of hearing an East Coast Pirate or someone in the Midwest. If you're in New York, you can check out West Coast signals and what the Midwest might be like at 0300.

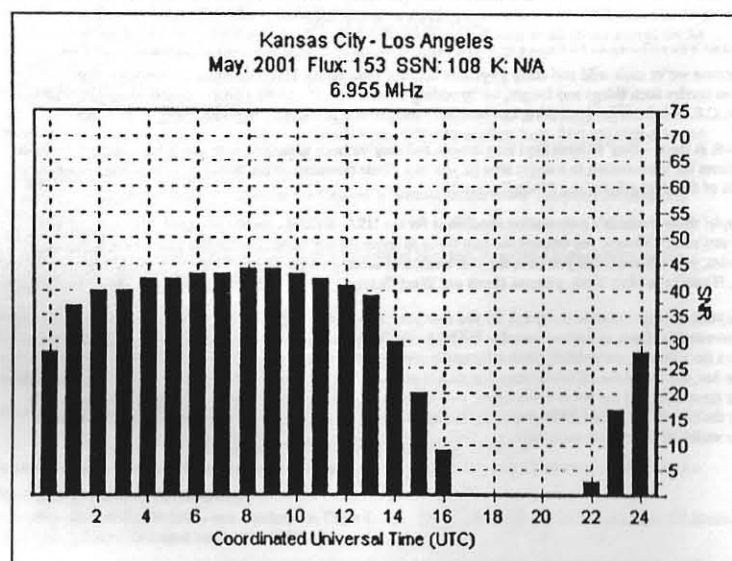
Using the table is easy - choose the graph for the area you're closest to and reception from the area of the USA that you're interested in. Look at the horizontal axis of the chart at the bottom - that shows the time of day (in UTC.) Choose the time slot(s) you're after. Then look at the corresponding bar(s) on the chart. The basic rule is that the higher the bar, the better the signal to/from that area is going to be. The lower, the weaker the signal will probably be. Don't assume that, if the bar is nonexistent, you won't hear anything at that time - propagation is a squirrely subject at the best of times and these graphs are rather like the long range weather forecast - accurate overall but subject to variation when least expected!



A more technical explanation is available if anyone wants it, but things were done (and explained) this way so that anybody can see at a glance how good the signals are likely to be between A and B.

Feedback on this section is requested – do you like it? Could it be useful? Do you want graphs that could show the best time to try for Europirates (remember, space is limited!)? Do you want domestic charts with other frequencies? Is it a waste of space and time (in your opinion)? Your feedback will dictate where this section goes (if anywhere) from here!

Okay, 'nuff said – see you next month!



VERIED RESPONSE

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NEXT COLUMN DEADLINE: May 19th.

Hi and welcome. The info on the ACE AWARDS PROGRAM follows this column.

BORDERHUNTER RADIO [Belgium/Dutch Pirate]. Verification sheet, postcard and bumper sticker in 28 days. [Reynolds-NH]

CRUNCHE RADIO. A "Crunch Radio Shortwave Engineering" logo sheet and playlist in 4 days. [Sedlacek-NE]

KRMI/RADIO MICHIGAN INTERNATIONAL. A Leprechaun theme full data post card for St. Pats Day in 2 weeks for an email report. (Sedlacek-NH)

RADIO FREE EUPHORIA. QSL received in 9 days. [Reynolds-NH]

TAKE IT EASY RADIO, 6955, nice full color skeleton certificate [QSL #191], personal letter from The Desperado plus a brochure on California beans in 2 months from Belfast. [Lobdell-MA] QSL and key tag in 70 days. [Reynolds-NH]

WMFQ. "Listener Names Sheet" format. Envelope had picture of JTA/Bozo on it in 43 days. [Reynolds-NH]

Many thanks to Lee Reynolds and John Sedlacek for their contributions.

The A*C*E Awards Program

The Association of Clandestine radio Enthusiasts offers five (5) Awards for various achievements in pirate listening, as well as North America's first and only Clandestine Award! When you qualify and apply for an A*C*E Award, you receive a beautiful certificate suitable for birdcages, dartboards or framing. A*C*E Awards are offered in the following categories:

1. Number different NAM MW & FM pirates QSLed in steps of 10. (NOTE 1)
2. Number different Euro MW & FM pirates QSLed in steps of 10. (NOTE 1)
3. Number different NAM SW pirates QSLed in steps of 20.
4. Number different Euro SW pirates QSLed in steps of 20.
5. Number different Pirate Countries QSLed with minimum of 3.
6. Number different Clandestine stations QSLed in steps of 5. (NOTE 2)

NOTES:

1. NAM listeners need only 5 Euro MW & FM QSLs to qualify; likewise, Euro listeners need only 5 NAM MW & FM QSLs.
2. For the purpose of the Awards Program, a Clandestine station is defined as: "an unofficial broadcasting organization which transmits bona-fide anti-government or liberation programming." Therefore, official government mouthpieces (e.g.: BBC, VoA, and the like) and Voice of Tomorrow do NOT count as clandestine stations.

To apply for your Award, send a list of your QSLs (pls print or type) stating station name or ID, type of QSL (card or letter) received, and date received, along with US\$1 and one mint postage stamp to: ACE Awards, PO Box 146, Stoneham, MA 02180. We no longer require photocopies of all your QSLs, but we reserve the right to request to see certain QSLs. If you wish your certificate mailed without those unsightly creases, please enclose two additional stamps or US\$2; overseas please enclose adequate funds for mailing.

Until next month, Happy Pirate QSLing.

CLANDESTINE PROFILE

by George Zeller

Your loggings, information, and speculations about clandestine radio stations are always very welcome for this column. You can send them direct to your editor at 3492 West 123rd Street, Cleveland, Ohio 44111. Or, you can call (216) 941-3366 anytime, or else (216) 696-9077 between 1300-2145 UTC weekdays. E-mail input is welcome via my georgez@nacs.net address, with <http://www.nacs.net/~georgez> providing access to my web page.

KENTUCKY STATE MILITIA RADIO DISAVOWS KSMR STATION RETURNS IRREGULARLY AS KSMR

At the end of March and early in April, KSMR returned to the air after an absence of a couple weeks. However, the Kentucky State Militia issued a statement expelling the operator of the station from the Militia, and disavowing any future connection with the station. This did not stop the station from broadcasting, but it did change its ID to United Patriot Radio. When on, it still puts out a whopping signal on either 3260 or 6880 kHz. Hours of operation have varied between 2300 and 0300, but during mid-to late April the station again seems to have vanished. Has anybody heard the station after this date?

Clandestine Radio Watch #67, noting these circumstances, said that, CDX and CRW are no in agreement that it's a political pirate and not a clandestine, due to the lack of support from (Kentucky State Militia). Certainly the editor of *The ACE Clandestine Profile* column could not be in greater disagreement with this conclusion by CDX and CRW. Both KSMR and United Patriot Radio are unlicensed, have broadcast with a regular schedule targeting the United States, and clearly have a clandestine political agenda. The stations are certainly more clandestine than Radio Marti, and are also more "clandestine" than the various stations that buy time on transmitters in places like Germany, Egypt, and South Africa to broadcast pure clandestine programming. If United Patriot Radio is not a clandestine, then I have never heard a clandestine radio station.

HARRY HELMS MYSTERY SIGNAL FOLLOW-UP

Harry Helms checks in again this month with a follow up on his 1140 kHz medium wave mystery signal, and some brief comments on the KSMR situation. I'll just quote Harry's entire remarks: "The National Radio Club web site now has a page devoted to the 1140 mystery signal, including reports by me and others along with a Real Audio file I made of the signal: <http://www.nrcdxas.org/mystery/> The KSMR situation is indeed fascinating; it's amazing the mainstream media haven't picked up on it yet."

TEN TEC 340 vs. WATKINS JOHNSON HF-1000

For two months in a row I have promised to have some information about the Ten Tec 340 receiver. I finally am getting around to this. I originally wrote this material after a February visit to the French Creek DXpedition. Most of the stations I chased during this DXpedition were clandestines, as reported earlier in *The ACE*. But, this month I concentrate on the performance of the two multi-kilobuck DSP receivers as clandestine DX tools at the DXpedition.

On February 8, 9, and 10 I attended the French Creek DXpedition. Along with NASWA members Rich D'Angelo, Fred Kohlbrenner, Bob Montgomery and Ed Mauer, I had the opportunity to test the WJ HF-1000 and the Ten Tec 340 under quiet DXpedition conditions. Given the fact that last year I tore down Ed's antenna by mistake on the way home, I was

fortunate that they let me anywhere near this DXpedition. But, this time I behaved myself. Even though Ed tried to burn down the cabin by setting the oven on fire, I was able to operate the two receivers A-B in the company of several good DXers. I used my usual DXpedition antenna consisting of 500 feet of yellow wire, but I also had a chance to patch in to Bob Montgomery's amazing homebrew active antenna. I had access to a Sherwood SE-3 synchronous detector with both receivers.

By now you have certainly seen the review of the Ten Tec 340 in *Passport to World Band Radio*. It is an extremely fine receiver, but given its cost approaching 40 pictures of General Grant, there remains some question about whether it is in a league with the Watkins Johnson for really tough DX. As *Passport's* lab measurements note, the Ten Tec comes up a little bit short of the HF-1000 on a few dimensions, notably 5 kHz dynamic range, blocking, and AGC threshold. The current version has not yet implemented a noise blanker. In most other specification categories, the 340 holds its own on paper with the HF-1000. Following the DXpedition, I now have a firmer opinion of the 340's place among the current crop of receivers in the marketplace. Let me take you through a few of the stations that I used to compare the performance of the two receivers.

Audio quality- I checked this out right away with AIR Dehli on 4860 at 0030 and R. Huayacocola on 2390 at 0045. It was clear that the audio was plenty good enough for DXing on both receivers, but the audio is slightly less harsh on the 340. Furthermore, 120 meters was subject to some static on the first day of the DXpedition. The static was definitely more pronounced on the HF-1000. Thus, the 340 has slightly better audio than the HF-1000. But, be advised that the SE-3 is useful on both receivers for increasing the level of recoverable audio as well as the audio fidelity. Fortunately the SE-3 hooks up easily to the 455 kHz IF out terminal on both receivers with a short piece of coax.

Beating Bad QRM- Probably the best and most interesting log of the DXpedition, both from a DX standpoint and from a technical challenge perspective, was the Somalia clandestine R. Baanadir on 7072 at 2035. I found this one on 2/8/01. It was easy to spot, since it was surrounded by ferocious jamming from whoop-whoop carriers on both 7071 and 7073 kHz. The resulting jumble was a horrible mess of hets and noise. I worked on this one for 20 minutes with both radios, adjusting the bandwidths to very narrow widths, using the notch, trying all the modes, and fiddling with the passband tuning control. Bob Montgomery joined the chase quickly with his NRD-535. He didn't have much luck. I was quickly reminded that the notch does not work in synchronous detector mode on the 340, a definite minus in a situation like this. I also was reminded that in synchronous detector mode the 340's minimum bandwidth is 4000 Hz. The HF-1000 has neither of these problems. With a very narrow bandwidth, an activated notch, and the synch mode, I was finally able to get some audio out of this mess with the HF-1000. Just as I was congratulating myself on this great feat, Bob also started grinning. The jammers suddenly both signed off the air at 2057, giving us three minutes of clear audio, including a female announcer's obvious ID. But, I was pleased with myself that I had heard this one for six minutes instead of three minutes. The story did not end there, since on 2/9/01 we all went back again to listen to this horrible mess. The nature of the mess changed the next day. Only one whoop-whoop jammer was present, this time above 7072, but the second jammer was transmitting a very loud wideband buzz noise below the station carrier. I could detect no carrier on this buzz jammer, so I'm not sure what mode it utilized. The Somalia government should be advised that their buzz jammer is highly effective, and is pretty much immune to any adjustments that I made with either the HF-1000 or the 340.

Construction Quality- My HF-1000 must be about five years old now. The wobbly keypad buttons have never fallen off, but the lettering has completely worn off the "0" and "5" keys. It looks like this will never be a problem on the superior 340 keypad. The 340 actually has components inside the case, unlike the vast empty space surrounding the HF-1000 DSP board. This gives you a better feeling, unless you need somewhere to store your beer inside the receiver. The 340 runs a little warm, while the HF-1000 generates absolutely no heat at all, but this is apparently not a problem. (It is nothing like the damaging heat in the 2050, or even the toasty effect from the ICOM R-9000). The feel of the tuning knob is better on the 340 than it is in the HF-1000. The dual S unit and dBm calibration on the 340 S meter is nice, while you get only one or the other on the HF-1000 depending on the vintage of the unit's production, so I like the 340 better on that one. I took a poll at a radio convention and I found that 85% of DXers like the blue digital readout on the 340 better, while 15% like the green digital readout on the HF-1000 better. Some find the 340 digital brightness to be slightly disconcerting in dark rooms, but John Bryant

has figured out that there is a dimmer function present in the 340 that is undocumented in the draft manual. The ergonomics are pretty good on both radios. Shielding is atrocious in the HF-1000, causing problems with DSP hash generation in some situations.

Dynamic Range- I noticed only one symptom of the dynamic range problem in the 340. KYW, the local 50 Kw MW news station on 1060 kHz, showed up on its alternate frequency of 180 kHz. It also bled through in a couple of other spots on longwave such as 500 kHz. A check with the HF-1000 revealed that KYW was not experimenting with its new longwave service, but that it instead was taxing the dynamic range of the 340 to a point beyond its limits. Interestingly, this happened only when I engaged the preamp. As *Passport* measurements noted, the 340 preamp degrades the dynamic range to some extent. This is not really a problem for SWBC DX, but if you are thinking of joining the Longwave Club of America, you might be advised that the HF-1000 has better dynamic range with its preamp automatically disabled than the 340 has with the preamp on. My guess is that if the HF-1000 preamp worked on longwave, it might show the same symptom. But, the HF-1000 preamp is automatically disabled on the longwave band.

External Audio- The 340 comes with a standard audio out jack on the back panel. The HF-1000 does not, and its 15 pin audio connector is implicated in a serious problem where DSP hash noise gets back into the IF of the radio via this connector, causing buzzing all over the frequency range of the radio. (This can be avoided by not using the audio connector, meaning that many samples of the HF-1000 do not have an external audio connector that works). None of this applies on a DXpedition, when everybody uses headphones, but caveat emptor for home shack use.

Filters- Both the HF-1000 and 340 have 56 DSP filters with vertical shape factors. There has never been anything like this before in the history of DXing. With ZIZ in St. Kitts coming in fairly well on 555 kHz during all nights of the DXpedition, I checked out the filtering on tight medium wave skirts. Both the HF-1000 and the 340 were able to pull ZIZ completely into the clear, eliminating all co-channel QRM. On AFRTS Diego Garcia on 4319U at 2110 I got absolutely clear audio on the 340 with a 1400 Hz filter. The degree of audio intelligibility from these very narrow DSP filters is significantly greater than what we are used to from mechanical or ceramic filters that are this narrow. Thus, you have both a huge selection of filters and a wider quantity of usable audio filters because of this property. Be advised that I find that the HF-1000 filters are more generously selected for very narrow values, such as may be useful for amateur radio CW or utility monitoring. Conversely, the 340 filters provide more alternatives above 2 kHz, thus being somewhat more useful to us as SWBC DXers. You can't go wrong on either radio; the amazing filter selection is the #1 highlight of all DSP receivers.

FM Mode- The FM mode worked fine on both the HF-1000 and the 340. We heard WJFP Fort Pierce on 26470 at 1445, and although this signal was not very solid, it came in at full quieting on both radios. Interestingly, WFLA on 25870 at 1440 actually sounded better in ISB and USB modes on the 340 and the HF-1000 than it did in FM. I think that this probably was a propagation artifact or a strange circumstance at the transmitter, rather than a measure of the FM performance of either receiver.

ISB Mode- Both receivers provide a true ISB mode, in which both sidebands are individually and separately demodulated. You can select either the upper sideband, the lower sideband, or both sidebands simultaneously on both radios. (But, be advised that this selectable ISB is only available through external speakers, not through headphones). On what I presumed was the clandestine Voice of Sudan on 8000 kHz at 0250, the carrier was bothered by utility noise above and below the frequency. But, the ISB mode on the 340 produced the best reception of any mode on the two receivers. Although we heard no North American pirates on this DXpedition, I also find myself using this mode while bandscanning for pirates. It detects AM carriers, USB, and LSB stations, all at the same time.

Medium Wave Tuning Step- The HF-1000 has the wonderful property that you can set its tuning step to literally any value that you'd like to have. The 340 lacks this capability, and therefore will tune only at 9 selectable tuning steps of 1 Hz, 10 Hz, 50 Hz, 100 Hz, 1 kHz, 5 kHz, 10 kHz, 100 kHz, and 1 MHz. This gives good flexibility, but it is notably missing a 9 kHz tuning step. Since 9 kHz is the standard frequency spacing on medium wave outside the Western Hemisphere, the 340 is slightly awkward in tuning European and African medium wave during DXpeditions. Presumably Ten Tec will fix this oversight in a future software upgrade, but at the present time, the HF-1000 is much more useful for tuning European MW.

Notch- I was disappointed by the lousy signal we got from the clandestine New Star Broadcasting Corporation, for instance on 8300 at 1320. Audio only sometimes rose up to listenable levels, although a carrier was present. A huge het from a nearby utility signal caused further problems. But, the amazingly deep notch on the 340 knocked the het out completely. The HF-1000 notch is equally deep, but it is more effective, since its range is plus or minus 9999 Hz, while the range of the 340 notch is only plus or minus 2000 Hz. This narrow notch range is a minus for the 340, but I have recommended to Ten Tec that they work on widening this range in future software upgrades. In the mean time, if a het is present from outside the 340's range, I can switch over to the HF-1000. This condition rarely happened at the DXpedition; I was surprised that the 340 notch was able to kill just about all of the hets that I went after. Both the 340 and HF-1000 have notch filters that are so far superior to the Drake notches that there is no comparison. There was one exception during the DXpedition. A bothersome het on AFRTS Diego Garcia on 4319U at 2110 was too high for the 340 to knock out, but the HF-1000 produced perfectly clear audio from our Armed Forces. The only problem with both radios is that there is only one notch. When you have multiple hets, such as down on longwave, you can only notch out one of them at a time.

Passband Tuning- My log of Echo of Hope, the Korean clandestine on 6348 at 1205, was a perfect illustration of the amazing abilities of the passband tuning circuit on the 340. The clandestine was bothered by utility noise, mostly above but also some from below. Bandwidth filter adjustments combined with the passband tuning was able to bring this one completely into the clear on the 340. I had similar results on Ghana BC Corporation on 3366 at 2215 in a mess of ute noise. Although hardly great DX, the 340 passband tuning produced perfectly clear Afro-pop despite the troublesome QRM. The passband tuning circuit on the HF-1000 works only in CW mode, and is therefore not anywhere near as useful as the wonderful one on the 340. The 340 passband tuning control reminds me of the one on the Drake R7, which is high praise indeed. This is one of the great advantages of the 340 over the Watkins Johnson.

Preamp- The HF-1000 preamp does not work on longwave, but it worked fine on the 340 down there. This came in handy for hearing the European longwave stations. I was surprised to find that our reception on them was generally better around 0200 than it was around sunset. I guess that I have a lot to learn about longwave propagation. (But, see the section on dynamic range about this).

Sensitivity- My favorite test of a receiver's sensitivity is to try and hear Africans on 60 meters as they fade in early during the afternoon. I tried Togo on 5047 at 1835, where the carrier was barely producing detectable audio. I could copy words on both radios, suggesting to me that they both have killer effective sensitivity. But, switching the SE-3 into the circuit improved audio quality on both radios, so that I could hear every word and all of the music. I noticed no difference between the 340 and HF-1000 on this dimension. I didn't try it this year, but in the past I found that the Drake R8B produces only a het under these conditions, with no usable audio. The DSP radios have no problem at all with usable sensitivity. You can't beat them.

Synchronous Detector- Both the HF-1000 and the 340 have synchronous detection. On paper, the 340 is better because its synch supports selectable sideband, in LSB, USB, or both sidebands together. The synch detector in the HF-1000 is only a DSB type. In practice, the synch in the HF-1000 is significantly better. On what I believe was the Democratic Voice of Burma via Madagascar on 11820 at 2330, the weak but steady signal exposed the 340's Achilles heel. The 340 synch does not lock very well on weak signals, leading to a disconcerting audio process where the synch loses lock and then regains it periodically. This produces no noise or het, but instead just sends you back and forth between regular AM reception and synchronous AM reception. This is a very real problem that I understand Ten Tec is working on in terms of possible future improvements. You can get a more steady lock by fiddling with the IF gain control, by engaging the preamp, and by monkeying around with the hundreds of millions of AGC settings. For instance, on the clandestine Voice of the People of Kurdistan on 6995 at 0345, I could get the synch to stay locked by leaving the preamp on. We had a Latin harmonic on 2440 at 0115. I got a slogan of R. Latina Manyana but I never determined an actual ID. The 340 synch was highly annoying on this relatively weak one, jumping in and out of lock constantly. In the final analysis the synchronous detector in the 340 does not hold lock as well as even a Sony 2010. The one in the HF-1000 is much better as a result. The one in the SE-3 is superior to the synch in either receiver, so it is a highly recommended peripheral.

Yahweh- There are some circumstances where even these kilobuck radios can't perform magic. I was highly annoyed that the Colombian rebels have not spent more of their cocaine profits on a new and better transmitter. I tried La Voz de Resistencia on 6233.8 at 1130 and 2230 on every morning and afternoon of the DXpedition. There was a carrier there on every check of the frequency at the appropriate time. But, generally no usable audio emerged on either radio, not even with the SE-3 to help out. It is no wonder that I seldom hear this one in Ohio, since I couldn't fish it out of the mud even on a DXpedition with a very long and quiet antenna. I guess the only alternative in such situations is to pray for better propagation, or for some more enlightened leadership among the rebels who will recognize the tremendous value of an improved North American signal.

Zeller's Overall Conclusion- When all was said and done, I concluded that the HF-1000 and the 340 are both very fine receivers. My reaction reminded me of the receiver tests that Dave Clark, Chuck Rippel, and I did up at Dave's receiver museum in Toronto two winters ago. At those tests, we had two Collins 2050's (Dave, like Noah, likes to have two of each kind of animal), a Kneisner and Doering KWZ30, a newly restored R-390A, a Drake R8 for control purposes, and a couple of other radios in Dave's massive collection that we turned on from time to time. We tuned intentionally to the weakest signals that we could think of and compared the recoverable audio from each of the receivers. The 2050 won at least half of the contests, but the KWZ-30 hung in there to win more than a third of the time. The 390A acquitted itself very well, winning maybe a sixth of the contests. This reminded me that no single radio is optimized for all conditions on all bands at all times. I found this to be the case between the HF-1000 and the 340. Each radio has a couple of warts and weak points, but they both are very strong overall. If you have to make a choice, you can save almost \$2000 with the 340, and you will get a radio just about as good as the HF-1000. In some respects it is worse, notably in the synchronous detector lock and the narrow notch range. But, in other respects it is better, such as the passband tuning circuit and the audio quality. In either case, you have a radio that is up to the highest standards, as demonstrated at the French Creek DXpedition. The best solution, as I found, is to acquire both receivers. That way you will be able to take advantage of the advantages of each receiver, while avoiding the disadvantages of each receiver.

All in all, the Ten Tec 340 is an extremely good DXpedition receiver. You should go buy one at once.

THANKS!

The input of ACE members and other DXers is vitally important to this column, and to all other ACE columns. We thank Martin Schoech (Germany), Nick Grace (DC), Bud Stacey (Alabama), Lee Reynolds (Vermont), Harry Helms (California), and George Zeller (Ohio) for providing material. Next month we all hope to hear from YOU by May 18 for the June *Clandestine Profile*.

Micro'casting

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The sole purpose of this column is to enlighten & educate ACE members of the many aspects of Part 15 & micro-radio. This is YOUR column, so send all stuff & what-have-you to the address or e-mail address above and YOU'LL get credit or blame, whichever you prefer!

VACATION OVER: Well, it's back to the daily grind tomorrow (4/23/01); the family & I spent a week in the beautiful Smoky Mountains. I have to admit- as much as I like it there, I didn't realize how good it'd be to walk on flat ground again! I got just a little opportunity to monitor a little shortwave & talk some 2-meter, but 98% of the time was spent with family plus two nephews- whew! We even had snow the fourth day there! The last evening we had to ourselves as a family, took in a show at the Dixie Stampede, walked around Gatlinburg Mall and checked out the hot rods at the Sevierville Rod Run! We left before

the big Friday & Saturday runs; when they all hit the street and mix with traffic, it takes about 20-30 minutes to travel a block!

SITE SURVEY: KNOXVILLE/GATLINBURG/SEVIERVILLE, TN I took it upon myself, seeing as the latter two cities are tourist attractions, to see what the FM band "looked like", in terms of LPFM feasibility. To say the least, there are PLENTY of "holes" to operate in, be it LPFM or Part 15, according to the newly emasculated rules of 3rd harmonic spacing. At least 12 stations could operate, if none were duplicated due to geographic spacing! Looking at reports re: the FCC, lots of people are getting turned down due to little technicalities, such as incorrect/incomplete paperwork (bureaucratic hoops), applicants having a "pirate radio background" and other such hoopla. I'll save my comments; needless to say, such includes heavy raspberries!

As I could see, transmitting and receiving in the mountains can be a boon AND a bane. VHF signals, such as at FM (and TV) frequencies tend to reflect and go awry; a small station would have to get a VERY advantageous mountain-top position, or at least on a mountainside toward the community it wishes to serve!

UNITED PATRIOT RADIO: No, this is a legit program aired every Saturday at 1600 UTC via Crusade Radio, 12.182 USB. A buddy of mine I'll call "Tony" programs a show called "United Patriot Radio", in the interest of- you guessed it- patriots. He's a sharp cookie and also puts out an info service; I can't think of the name of it at the moment, but I'll catch y'all up on it later! You can also listen in on the Web in two places:

http://highdesertmilitia.freelyellow.com/Gun_Show.htm, or
www.crusaderadio.com

and just click on "listen live". Thanks, Tony!

I missed the last two Saturdays myself, having being on the road, but I did give a listen via SW today; it sounded as if the station was having some severe audio problems, or there was a clever jammer in there. Needless to say, I think it was the former, since the station left the air several times, audio-wise.

SPEAKING OF SHORTWAVE: I just remembered a Part 15 band I'd been meaning to check out and just did: 13.553 to 13.567 MHz! I've heard what sounds to be some remote control data bursts and maybe some voice there a few years ago. Nothing on the latest listen, but there was WIND(?) out of PA on 13.570 MHz. Needless to say, power allowed here is 10,000 mv/meter at 30 meters with no mention of antenna restrictions; MUCH better than Part 15 AM or FM! Wonder if we should give it a try, folks? What power input/output would that be, techies?

I remember, back in '93, I got a "QSL #1 and only" for hearing a 10 watt pirate using a "badly tuned dipole" on 14973.7 kHz; sounds promising, doesn't it? What with the solar cycle coming to peak shortly, it could be someone could hear a Part 15 station on DX!

MOVIE REVIEW: I caught FSTV's "The Magic of Radio" about 12:30 a.m. and taped it; it was touted to be a show on pirate radio. About half the show was about LPFM, the other half on Amateur Radio, interspersed with soundbites of WWV, CW, aero, and other radio phenomena, as well as California AM broadcaster KGO explaining skywave skip to a listener. Somewhat interesting, with production about a B rating, with lots of scenes that looked like the inside of an acid-tripper's brain. The pirate segments consisted of a girl in Portland, OR, who broadcasted with a battery-powered FM rig while riding her bike, and two gals whooping it up on a community station: There was some very candid & frank conversation there! FSTV, or Free Speech TV is on ch. 9415 on Dish Network; you can call them at 888-550-FSTV, check 'em out on the Web at: www.freespeech.org or write to FSTV, PO Box 6060, Boulder, CO 80306.

So, with that, I'd better get ready to return to the real world; until next time, let me hear from YOU! de Bud



Covert Comms

By Tom Sevart

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As we've all heard about in the news lately, a U.S. Navy EP-3 Orion reconnaissance aircraft collided with a Chinese fighter aircraft and force landed on the Chinese island of Hainan on April 1. Fortunately, all the crewmembers have since been returned, but the aircraft, with all its sensitive classified equipment on board, remains in Chinese hands.

According to an article sent in by Al Fansome, the loss of U.S. intelligence secrets to China may force Japan and the United States to change a secret communications system at a cost of millions of dollars. The U.S. shares intelligence and operational codes through a coded communications system with Japan since they are a close military ally.

A Japanese Defense Agency official stated that Japan is waiting for reports from the U.S. about how much of the system was destroyed by the crew of the plane before it landed. If the system was totally destroyed in order to prevent it from falling into Chinese hands, then a change may not be necessary. However, if the system wasn't destroyed, a change will be needed.

Japan conducts its own intelligence flights using five EP-3's similar to the U.S. Navy aircraft. It was stated that Japan's intelligence missions aren't threatened by the capture of the U.S. plane. Japan's intelligence missions collect information on electronic signals such as communications, radar, early warning systems, and troop movements in other countries. These missions are similar to the mission performed by the captured U.S. aircraft.

The codes used by the communications system are computer generated, which change each time they're used. It is nearly impossible to decode messages, no matter what the Chinese have found on board the captured aircraft. However, it may be possible for them to block the communications system. They might be able to fly their own aircraft, duplicating an EP-3, over U.S. and Japanese ships and effectively block their operations.

On a more personal note, it really makes me sick to think about what kind of intelligence the Chinese have gotten from our aircraft. I can only hope that the crew did their emergency destruct procedures before landing. "Emergency destruct" is a term used to refer to destroying classified material and equipment before allowing it to fall into enemy hands.

A friend of mine flew on a P-3 during the Vietnam war, and he believes the captain should have been court-martialed for not ditching the aircraft in the ocean. He told me that they do have parachutes on board the aircraft. Whether or not they have them on board the EP-3 today, I really don't know. But I am in agreement that all classified material should have been destroyed before landing.

Of course, I was not on board that aircraft and am just an armchair quarterback. It's obvious that decisions were made under great stress, and we really don't have many details as to what happened after the collision. I hope that details do come out in the near future, but since we are dealing with intelligence matters, and details may not come out for several years. I am happy that the crew has returned home safely.

Before I sign off for this month, here's some loggings sent to me from Desperado at Take It Easy Radio:

5230 - CIO8 in USB, Mossad E10 (no time given)
5418 - YL/EE repeating 506, then 5F grps. (E17?) (no time given)
5810 - CIA counting stn E5 rptng 204, then message from 0130-0300
6912 - YL/SS 5F grps (Spanish V27) at 0212.

That's all for now. Your comments, suggestions, loggings, and other info are always appreciated.

the ASSOCIATION of CLANDESTINE radio ENTHUSIASTS

PO Box 1, Belfast, New York 14711-0001

The A*C*E is an association of individuals who find pirate, clandestine and covert communications an interesting part of their radio listening hobby. The primary existence of the club revolves around the publication of a monthly bulletin, The A*C*E. The bulletin reports on pirate, clandestine, covert and other unexplained broadcasts. Also, the readers are provided with other available material concerning motives, explanations and the theories behind these various broadcasts and broadcasters. The ACE as an organization, does not encourage, support or condone any illegal activity; we simply seek to understand the nature and reasoning behind such broadcasts. If your interests include listening to pirate radio stations, clandestine broadcasts and covert communications, The A*C*E is for you!!

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